

REMARKS

The present application was filed on February 26, 2004 with claims 1 through 20. Claims 1 through 20 are presently pending in the above-identified patent application.

In the Office Action, the Examiner rejected claims 1-20 under 35 U.S.C. §102(b)
5 as being anticipated by Giles et al. (United States Publication No. 2002/0118517).

Independent Claims 1, 8 and 14

Independent claim 1, 8 and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by Giles et al. Regarding claim 1, for example, the Examiner asserts that Giles et al. discloses a modem module (par. 0041) for connecting to a carrier assembly, comprising:
10 circuitry (pars. 0027, 0042, PCB 200 includes circuitry 202) for interfacing with a telephone line (par. 0014); and one or more solder pads (FIG. 2A, 206 on PCB 200) for connecting a signal line of said modem module (par. 0014) to said carrier assembly (FIG. 2A, 200).

In one aspect of the present invention, a modem module is provided that may be attached to a motherboard and thereby eliminates the need to recertify the motherboard.
15 Applicants note that the Examiner does not allege that Giles et al. discloses solder pads *on the modem module*, as variously required by each independent claim. The Examiner references the solder pads 206 in FIG. 2A, *but these solder pads are on the PCB* (i.e., the “carrier assembly,” using the terminology of the current claims).

The present claims and Giles et al. both operate in an environment where a first
20 circuit assembly (a “modem module” in the context of the present claims, and a “chip component assembly 300” in the context of Giles et al.) interfaces with a second circuit assembly (a “carrier assembly” in the context of the present claims and a “PCB 200” in the context of Giles et al.).

Applicants note that the above rejection relies on structure from *both* the a “chip component assembly 300” and the “PCB 200” in Giles et al. in forming the rejection of the
25 claimed modem module.

Applicants submit that the present invention provides a patentable advancement in how the two assemblies are interconnected. In particular, Applicants are claiming a particular configuration of the first circuit assembly (i.e., a “modem module”) that is not disclosed or suggested by Giles et al. Applicants submit that the Examiner’s reliance on structure from the
30 PCB in rejecting the modem module is improper. As discussed hereinafter, the present claims expressly require that the modem module *itself* includes one or more *solder pads* for connecting

a signal line of the modem module to the carrier assembly.

A person of ordinary skill in the art recognizes the term “solder pads” is a term of art that is distinct from more general terms used to convey an electrical connection, such as “terminal elements.” *Significantly, Giles et al. makes this distinction as well.* Giles et al. *only* references the solder pads 206 *on the PCB 200*. These solder pads 206 mate with first terminal elements 302A on the chip components 302. Giles et al. does not use the term “solder pads” to describe *any* structure *on the chip component assembly 300*. The undeniable contrast in terminology is apparent in the following statement from par. 0043:

“In particular, chip component assembly 300 includes a plurality of chip components 302 arranged so that each contacts a respective solder pad 206.”

See also, for example, FIG. 2B, where the first terminal elements 302A on chip component assembly 300 are shown in electrical connection with the solder pads 206 on the PCB 200. As shown in FIG. 2B, and described in par. 0059:

“respective first terminal elements 302A of chip components 302 are physically and electrically connected to electronic circuitry 202 (not shown) by way of solder pads 206”

As discussed in par. 0043, and shown in FIG. 2A, chip component assembly 300 (which is analogous to the claimed modem module) “includes a plurality of *chip components 302* arranged so that each contacts a respective solder pad 206.” (emphasis added). The chip components 302 and the first terminal elements 302A thereon are **not** solder pads. Clearly, Giles would have referred to them as “solder pads” if such was intended.

In addition, the solder pads 206 of Giles do not connect a *signal line of the modem module* to the carrier assembly, as further variously required by each independent claim. Again, rather, the solder pads 206 connect the first terminal elements 302A of the *chip components 302*” to the electronic circuitry 202 on the PCB 200. The solder pads 206 are “in communication with electronic circuitry of the printed circuit board.” See, Abstract.

In the Response to Arguments section, the Examiner points to FIG. 2A and pars. 0010 and 0011, and asserts that the chip component (302) is mounted so that the terminal elements (302A) contact corresponding “solder pads *on the PCB*.” Applicants submit that solder pads on the PCB do not meet the claim requirement of solder pads on the modem module!

The Examiner further notes, relying on FIGS. 1 and 2A and par. 0041, that "PC card" may take the form of a modem card. It is noted that the "PC card" is element 100 from FIG. 1 and not the PCB 200 of FIG. 1 or 2A. Thus, there is no teaching that the PCB itself is a modem card. Thus, no portion of Giles et al. suggests solder pads on a modem card. *The only use of solder pads in Giles is limited to the PCB 200.*

Thus, Giles et al. do *not* disclose or suggest one or more solder pads (**on a modem module**) for *connecting a signal line of a modem module to a carrier assembly*. Independent claims 1, 8, and 14 require one or more solder pads (**on a modem module**) for connecting a *signal line of said modem module* to said carrier assembly.

Applicants respectfully request withdrawal of the rejection of independent claims 1, 8 and 14.

Dependent Claims 2-7, 9-13 and 15-20

Claims 2-7, 9-13, and 15-20 are dependent on claims 1, 8, or 14, respectively, and are therefore patentably distinguished over Giles et al. because of their dependency from amended independent claims 1, 8, or 14 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

Conclusion

All of the pending claims following entry of the amendments, i.e., claims 1-20, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,



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